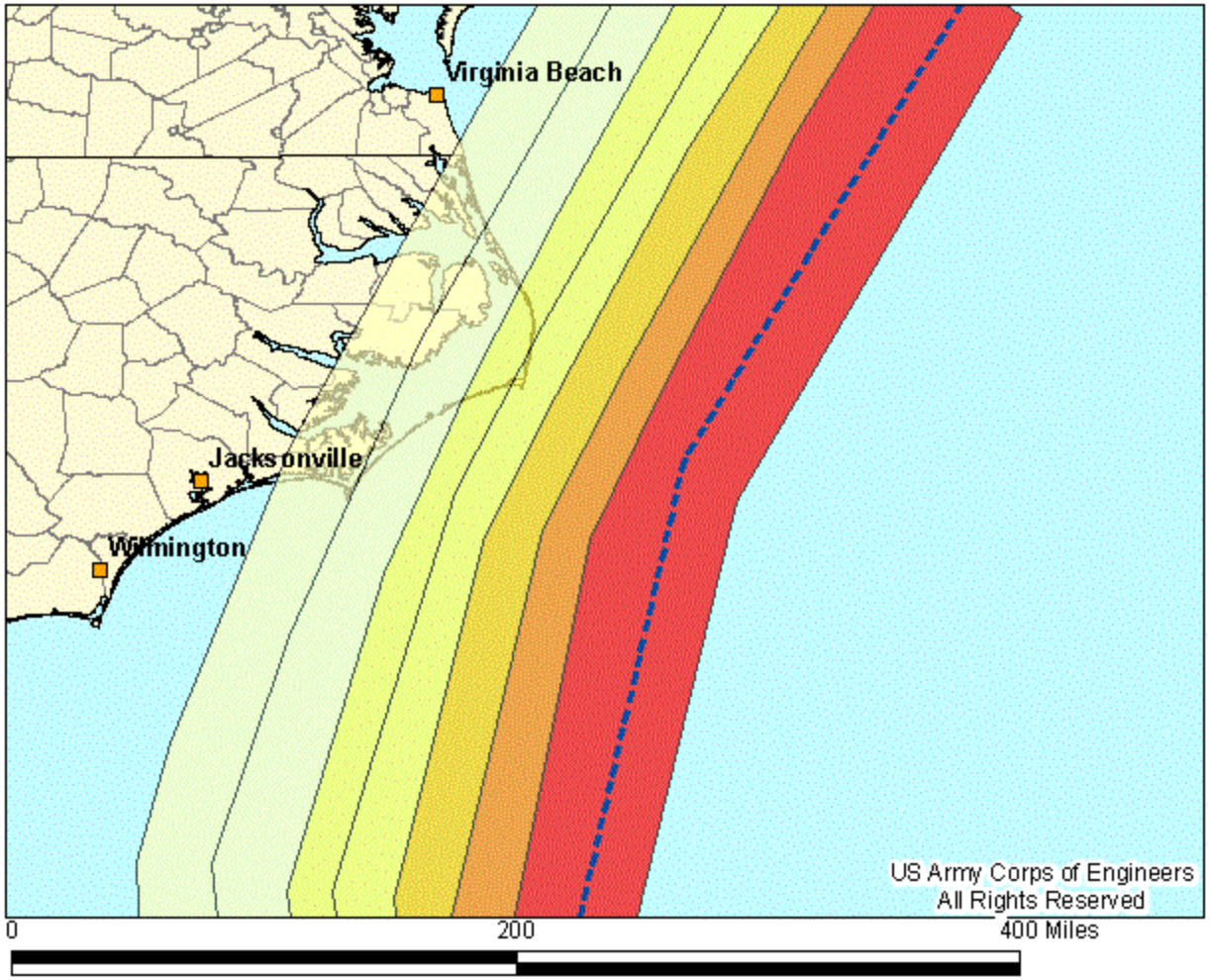
US Army Corps of Engineers

Hurricane Earl Projected Damage Areas

Landfall Expected In About 20 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Projected Damage Areas

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

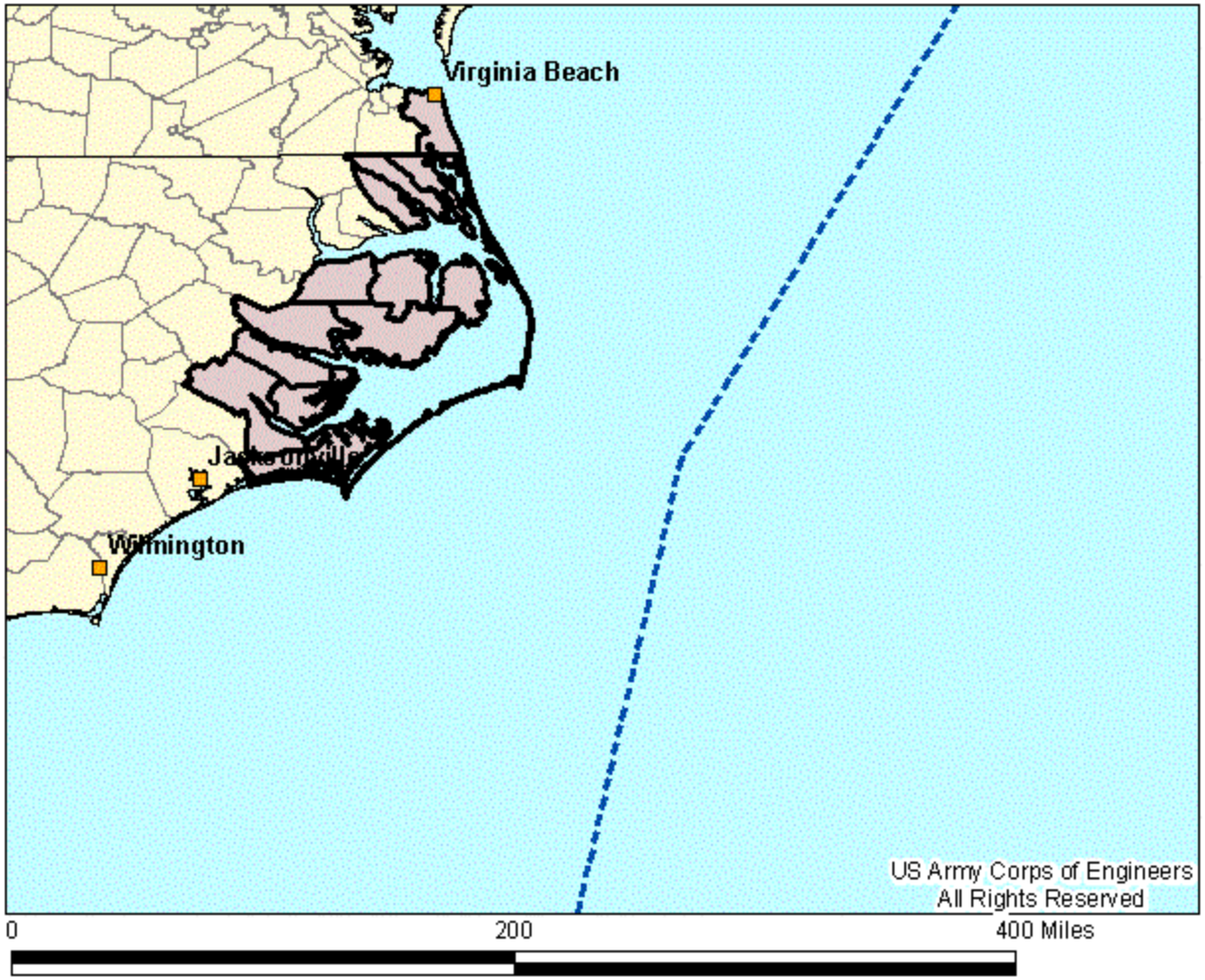
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Debris Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

North Carolina - 170,000 Yards
Virginia - 2,000 Yards

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Debris Model	
Generated By: Siemsen, LRL 0700 EDT 09/02/2010	
Sources: HURREVAC LRL-DEBRIS	Page 2 of 14

US Army Corps of Engineers

Hurricane Earl Debris Model

Landfall Expected In About 20 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
North Carolina		Beaufort County	2,000
		Camden County	7,000
		Carteret County	46,000
		Craven County	12,000
		Currituck County	13,000
		Dare County	54,000
		Hyde County	15,000
		Pamlico County	10,000
		Pasquotank County	4,000
		Tyrrell County	7,000
		Washington County	< 1,000
North Carolina	170,000		
Virginia		Virginia Beach city	2,000
Virginia	2,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Earl Debris Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

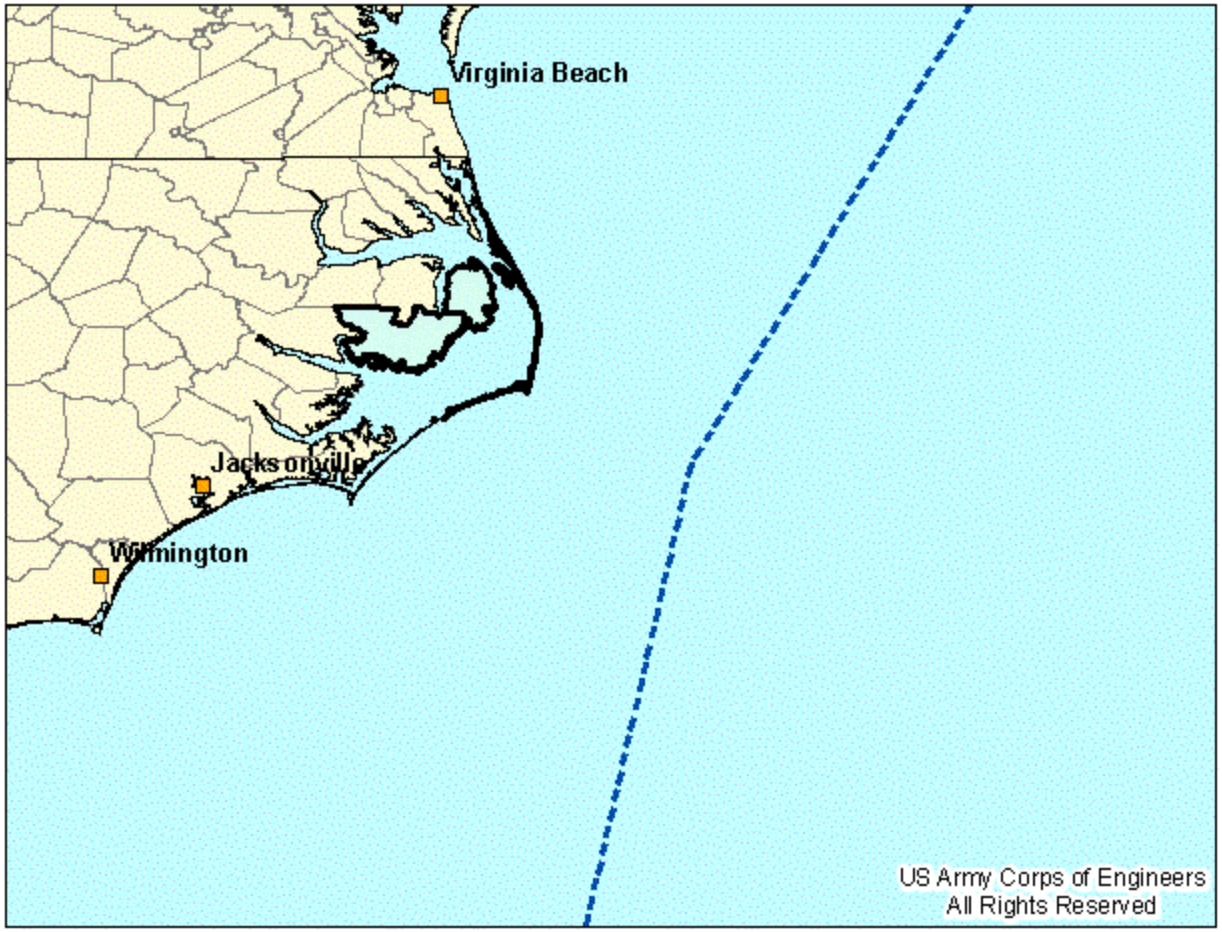
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Commodities Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three
North Carolina – 1/1/2 Truckloads

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC ***(0500 EDT 09/02/2010)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Commodities Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Commodities Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
North Carolina		Dare County	1
		Hyde County	1
North Carolina	2		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Commodities Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

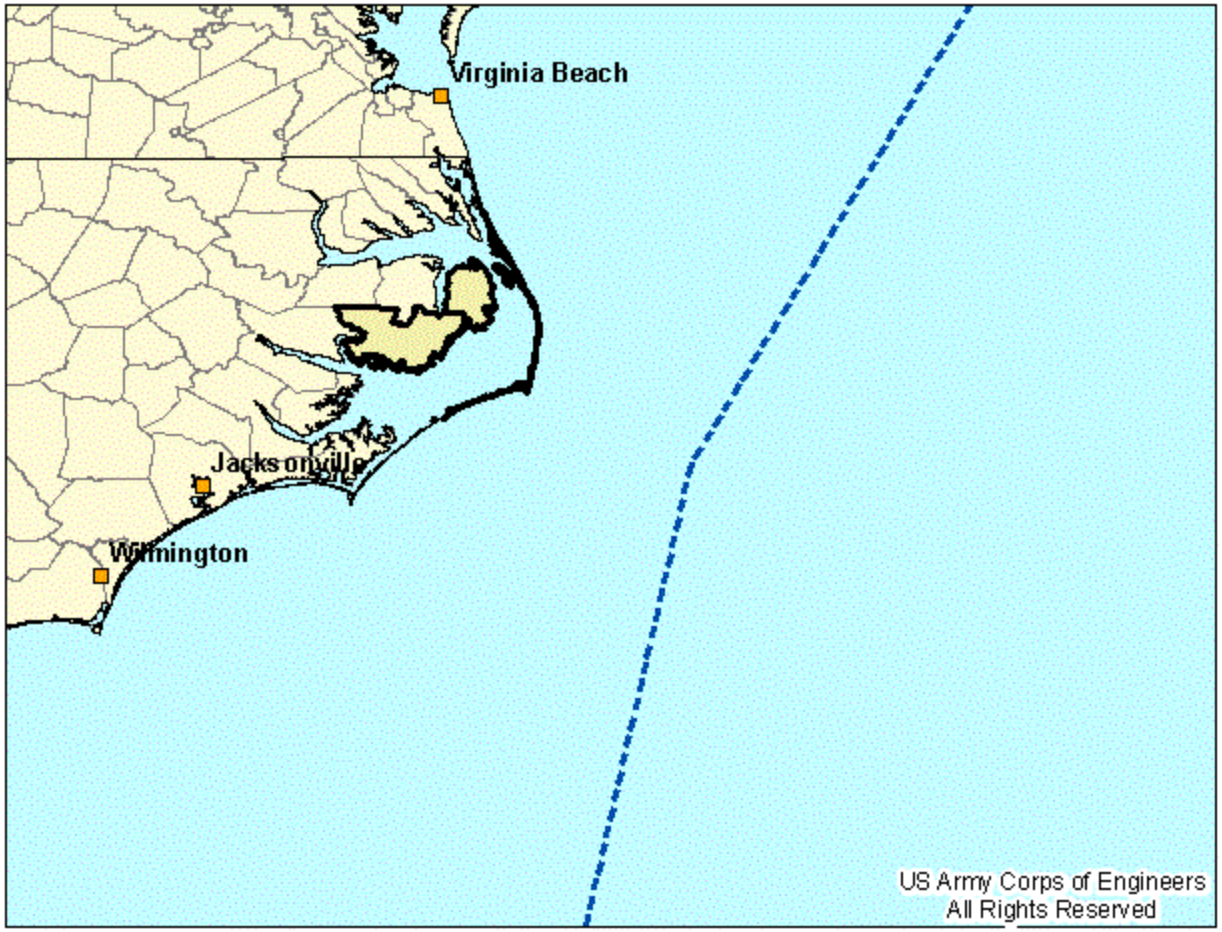
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Temporary Roofing Model

Landfall Expected In About 20 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

< 100

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast. Temporary roofing is based on 2% in CAT 1, 5% in CAT 2, 8% in CAT 3 and 12% in CAT 4.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Roofing Model	
Generated By: Siemsen, LRL 0700 EDT 09/02/2010	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 14

US Army Corps of Engineers

Hurricane Earl Temporary Roofing Model

Landfall Expected In About 20 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
North Carolina		Dare County	< 100
		Hyde County	< 100
North Carolina			

Temporary roofing is based on 2% in CAT 1, 5% in CAT 2, 8% in CAT 3 and 12% in CAT 4.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Earl Roofing Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

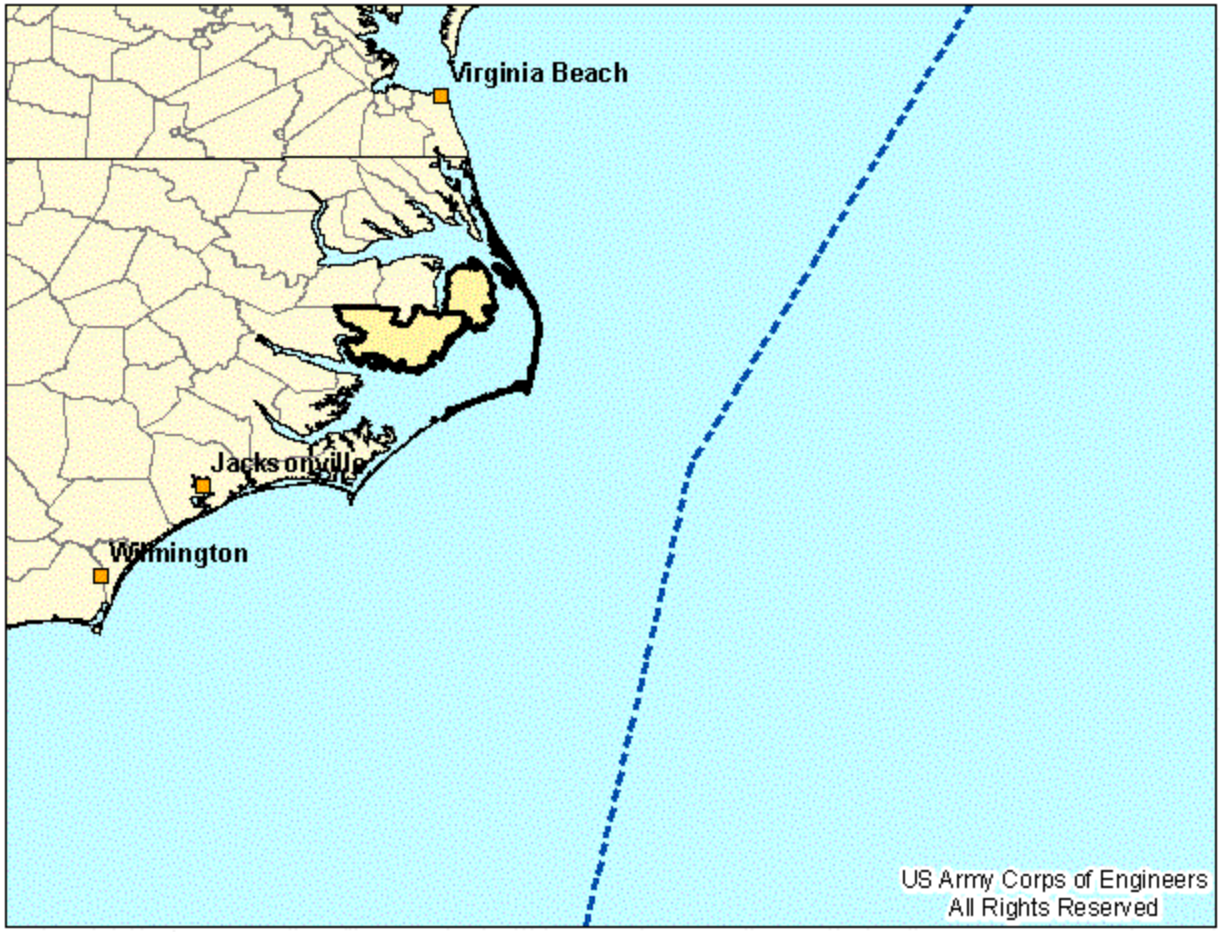
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Population Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Post Landfall Population Model Results

< 1,000

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2008 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Population Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Population Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
North Carolina		Dare County	< 1,000
		Hyde County	< 1,000
North Carolina			

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2008 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Earl Population Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

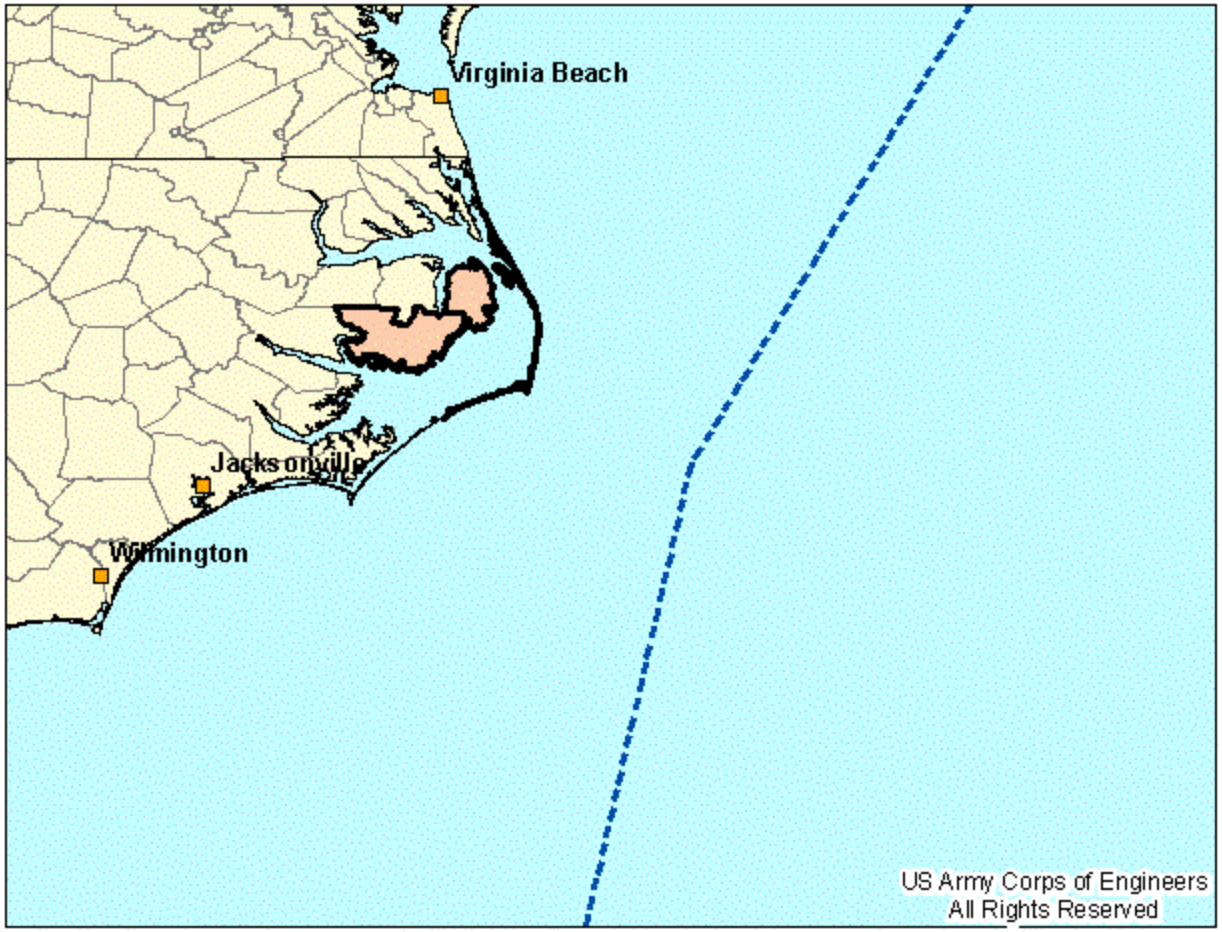
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Households Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Post Landfall Households Model Results

< 1,000

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2008 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Households Model	
Generated By: Siemsen, LRL 0700 EDT 09/02/2010	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 14

US Army Corps of Engineers

Hurricane Earl Households Model

Landfall Expected In About **20** Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
North Carolina		Dare County	< 1,000
		Hyde County	< 1,000
North Carolina			

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2008 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Earl Households Model

Generated By:
Siemsen, LRL 0700 EDT 09/02/2010

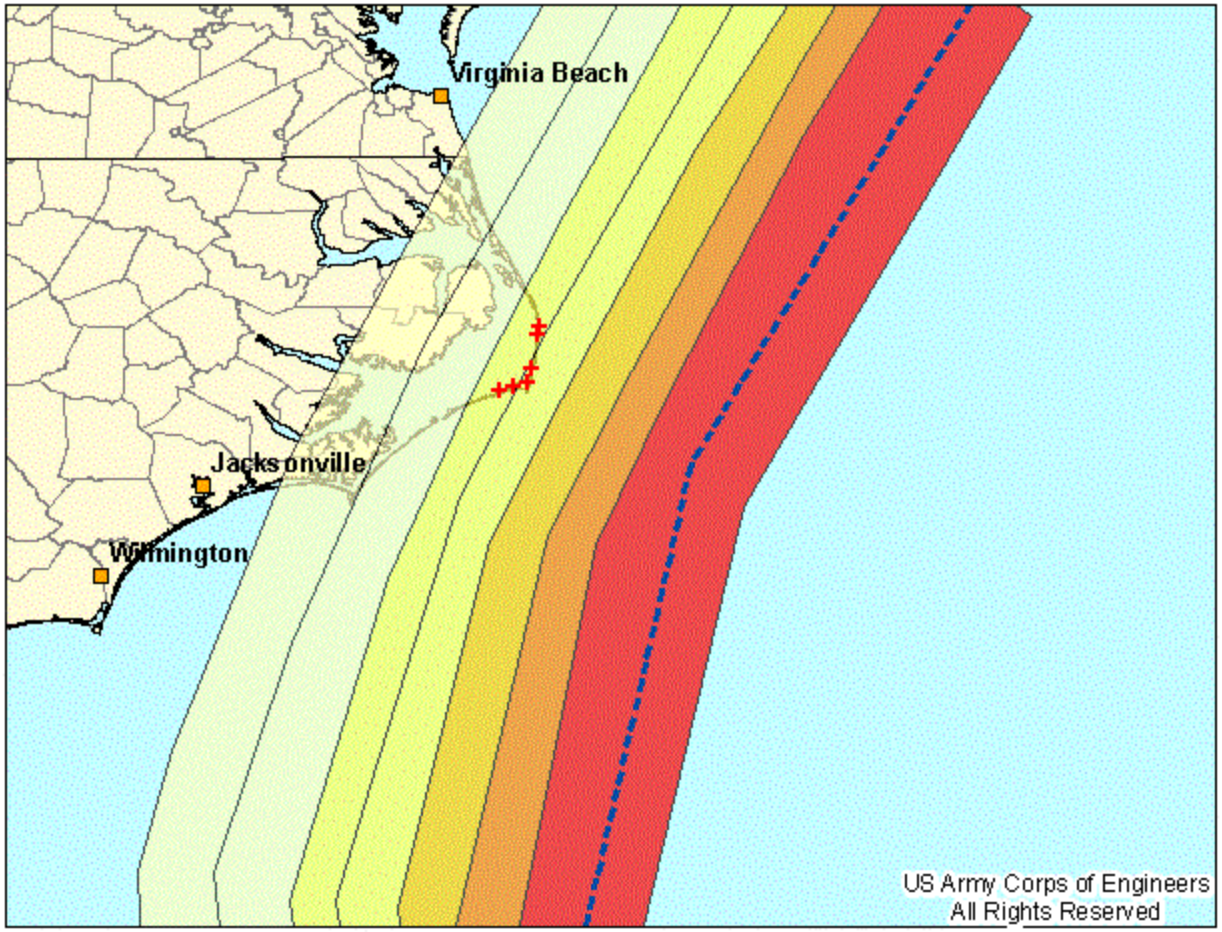
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Earl Fire Stations

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

North Carolina - 6

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

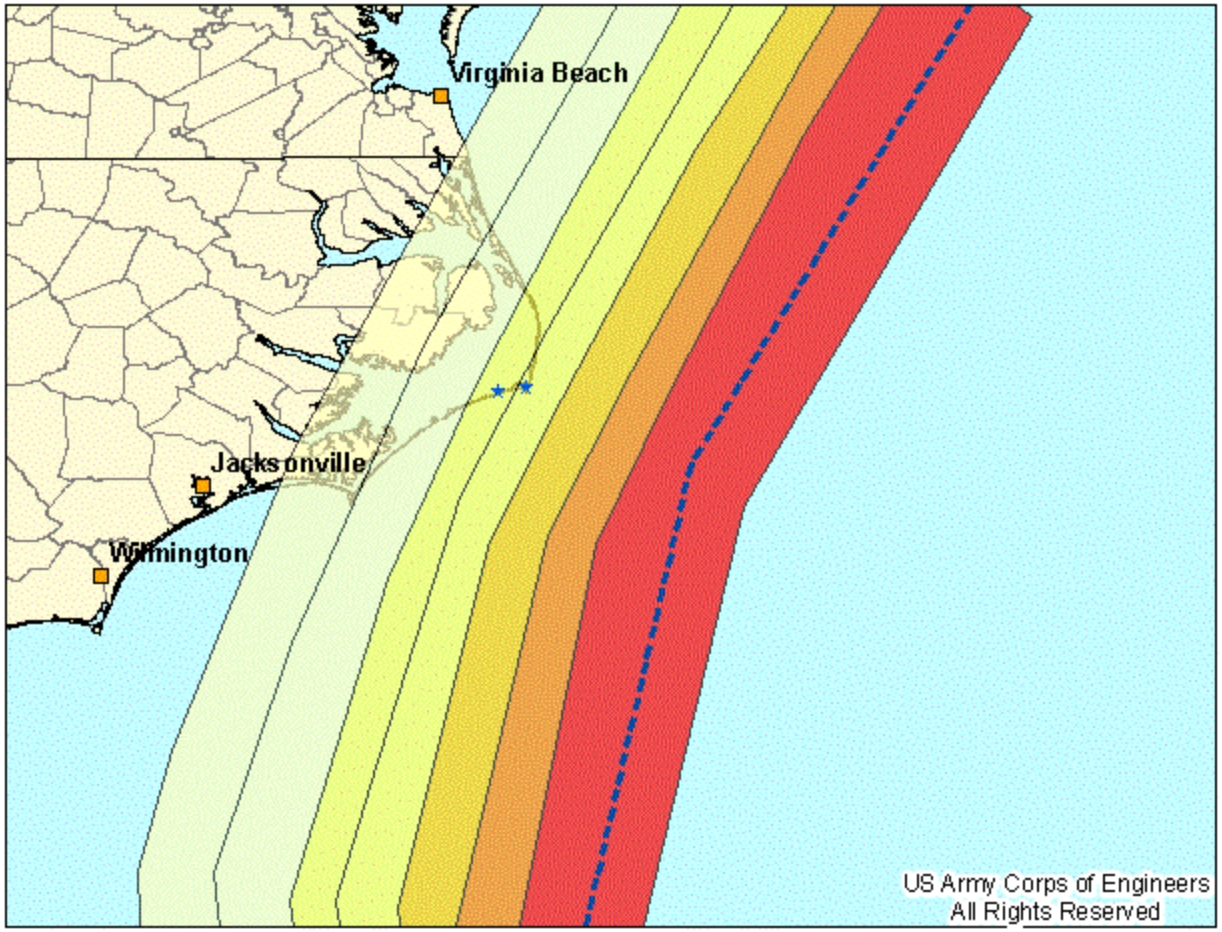
Hurricane Earl Fire Stations	
Generated By: Siemsen, LRL 0700 EDT 09/02/2010	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Earl Law Enforcement

Landfall Expected In About **20** Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

North Carolina - 2

Model results per County on following page

This model is based on a Category 4 storm making landfall near Outer Banks, NC.

★ Law Enforcement
Forecast Track
Historic Track

Information provided on this page displays a Category 4 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 09/02/2010) forecast.

The number of law enforcement included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Earl Law Enforcement	
Generated By: Siemsen, LRL 0700 EDT 09/02/2010	
Sources: HURREVAC LRL-DEBRIS	